

WHAT IS CLAIMED IS:

1. A method of testing an electrical switchgear system, comprising:
applying an analog signal to a node in said electrical switchgear system,
wherein said node monitors a power line signal and controls a breaker
based on said power line signal, and wherein said analog signal
simulates said power line signal; and
receiving data representing a status of said breaker.
2. The method of claim 1, where in said data is received from at least one of
said node or said breaker.
3. The method of claim 1, wherein said analog signal has a magnitude of
less than about 10 volts peak-to-peak.
4. The method of claim 1, wherein said analog signal has a magnitude of
about 2.5 volts peak-to-peak.
5. The method of claim 1, wherein said analog signal has a magnitude of
less than or equal to about 10% of a magnitude of said power line signal.
6. The method of claim 1, wherein said applying said analog signal is
performed while said node monitors said power line signal.
7. The method of claim 1, wherein said analog signal simulates a fault
condition of said power line signal.
8. The method of claim 1, wherein said analog signal simulates a non-fault
condition of said power line signal.
9. The method of claim 1, further comprising:

modifying said analog signal based on said status of said breaker; and
receiving additional data representing said status of said breaker.

10. The method of claim 1,

wherein said analog signal is a first analog signal, said node is a first node,
said breaker is a first breaker, and said power line signal is a first
power line signal,

wherein said method further comprises applying, simultaneously with said
applying said first analog signal, a second analog signal to a second
node in said electrical switchgear system,

wherein said second node monitors a second power line signal and controls
a second breaker based on said second power line signal, and

wherein said second analog signal simulates said second power line signal.

11. The method of claim 1, further comprising measuring a time required
for the said breaker to trip based on timestamps of said data.

12. A method of testing an electrical switchgear system, comprising:

applying a first analog signal to a first node in said electrical switchgear
system, wherein said first node monitors a first power line signal and
controls a first breaker based on said first power line signal, and
wherein said first analog signal simulates said first power line signal;

applying, simultaneously with said applying said first analog signal, a
second analog signal to a second node in said electrical switchgear
system, wherein said second node monitors a second power line signal
and controls a second breaker based on said second power line signal,
and wherein said second analog signal simulates said second power
line signal; and

receiving data from said first node representing a status of said first breaker,
wherein said first analog signal has a magnitude of less than or equal to
about 10% of a magnitude of said first power line signal.

13. A arrangement for testing an electrical switchgear system, comprising:
a generator for applying an analog signal to a node in said electrical
switchgear system, wherein said node monitors a power line signal
and controls a breaker based on said power line signal, and wherein
said analog signal simulates said power line signal; and
an interface for receiving data representing a status of said breaker.

14. The arrangement of claim 13, wherein said interface receives said data
from at least one of said node or said breaker.

15. The arrangement of claim 13, wherein said analog signal has a
magnitude of less than about 10 volts peak-to-peak.

16. The arrangement of claim 13, wherein said analog signal has a
magnitude of about 2.5 volts peak-to-peak.

17. The arrangement of claim 13, wherein said analog signal has a
magnitude of less than or equal to about 10% of a magnitude of said power line
signal.

18. The arrangement of claim 13, wherein said generator applies said analog
signal while said node monitors said power line signal.

19. The arrangement of claim 13, wherein said analog signal simulates a
fault condition of said power line signal.

20. The arrangement of claim 13, wherein said analog signal simulates a
non-fault condition of said power line signal.

21. The arrangement of claim 13, wherein said arrangement:

modifies said analog signal based on said status of said breaker; and receives additional data representing said status of said breaker.

22. The arrangement of claim 13,
wherein said analog signal is a first analog signal, said node is a first node, said breaker is a first breaker, and said power line signal is a first power line signal,
wherein said generator is also for applying, simultaneously with said applying said first analog signal, a second analog signal to a second node in said electrical switchgear system,
wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal, and
wherein said second analog signal simulates said second power line signal.

23. The arrangement of claim 13, further comprising a processor for measuring a time required for the said breaker to trip based on timestamps of said data.

24. A arrangement for testing an electrical switchgear system, comprising:
a generator for applying a first analog signal to a first node in said electrical switchgear system, wherein said first node monitors a first power line signal and controls a first breaker based on said first power line signal, and wherein said first analog signal simulates said first power line signal;
a generator for applying, simultaneously with said applying said first analog signal, a second analog signal to a second node in said electrical switchgear system, wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal, and wherein said second analog signal simulates said second power line signal; and

an interface for receiving data from said first node representing a status of said first breaker,
wherein said first analog signal has a magnitude of less than or equal to about 10% of a magnitude of said first power line signal.

25. A storage medium comprising instructions for controlling a processor for testing an electrical switchgear system to:

apply an analog signal to a node in said electrical switchgear system,
wherein said node monitors a power line signal and controls a breaker based on said power line signal, and wherein said analog signal simulates said power line signal; and
receive data representing a status of said breaker.

26. A storage medium comprising instructions for controlling a processor for testing an electrical switchgear system to:

apply a first analog signal to a first node in said electrical switchgear system, wherein said first node monitors a first power line signal and controls a first breaker based on said first power line signal, and
wherein said first analog signal simulates said first power line signal;

apply, simultaneously with said applying said first analog signal, a second analog signal to a second node in said electrical switchgear system, wherein said second node monitors a second power line signal and controls a second breaker based on said second power line signal, and
wherein said second analog signal simulates said second power line signal; and

receive data from said first node representing a status of said first breaker,
wherein said first analog signal has a magnitude of less than or equal to about 10% of a magnitude of said first power line signal.